

A NEW SUBSPECIES OF *POLYURA SACCO* SMART (LEPIDOPTERA: NYMPHALIDAE) FROM VANUATU

R. B. LACHLAN

Associate, Entomology Department, Australian Museum, P.O. Box A285, Sydney South, N.S.W.
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Abstract

Polyura sacco santoensis subsp. nov. is recorded from the northern islands of Espiritu Santo and Malekula, Vanuatu. *P. s. sacco* Smart is newly recorded from Erromango, southern Vanuatu.

Introduction

One species of *Polyura* Billberg, *P. sacco* Smart, 1977, has been described from Vanuatu, a chain of islands stretching over 800 km from south of the Solomon Islands to east of New Caledonia. The original specimens were taken in 1975/76 on the southern island of Tanna. In 1988 I collected two males and three females on the northern island of Espiritu Santo which differ noticeably from those of the south.

Polyura sacco santoensis subsp. n.

(Figs 1-7)

Types - VANUATU, Port Olry, Espiritu Santo Island: *holotype* ♀, 2.i.1988, R. B. Lachlan (Australian Museum, Sydney); paratypes 2 ♂♂, 1 ♀, 2.i.1988, 4.i.1988 and 9.i.1988, R. B. Lachlan (Australian Museum, Sydney and author's collection).

Description

Both sexes differ from the nominate race as follows:

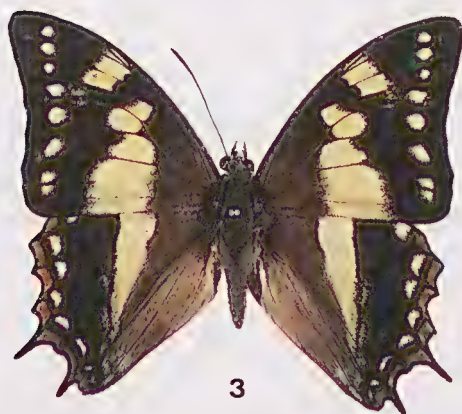
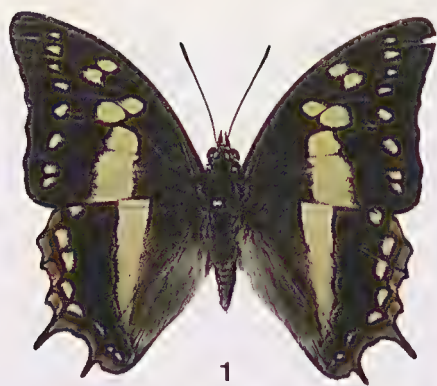
Upperside. Forewing with yellow spots much reduced in size; yellow median band in cells CuA1, CuA2 and 2A reduced in width particularly in ♂. Hindwing yellow median band narrower in both sexes; median band bordered distally by a much narrower diffuse blue-green scaling, particularly so in the ♀ where it is reduced to an exceptionally thin line of lunules.

Underside. Much of the red-brown ground colour is diffused by silver scaling, particularly in basal areas; silvering much more evident in ♀ where the hindwing subbasal tawny band is completely silvered; distal third of forewing cells CuA2 and 2A blackened.

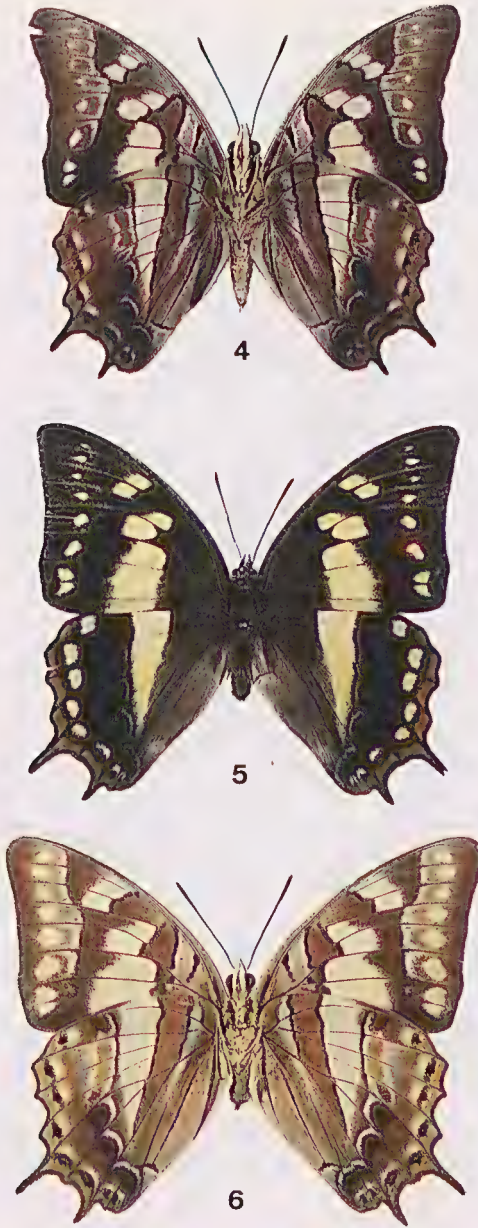
Discussion

P. s. santoensis can be distinguished from *P. s. sacco* by the reduced spotting and narrower median bands on the upperside, and the increased diffuse silver scaling of the underside that is particularly evident in females.

P. s. sacco has been recorded previously only from restricted areas on the



Figs 1-3. (1-2) *Polyura sacco santoensis*, paratype ♂, 1 upperside, 2 underside; (3) *Polyura sacco sacco*, ♂ upperside.



Figs 4-6. (4-5) *Polyura sacco santoensis*, holotype ♀, 4 upperside, 5 underside; (6) *Polyura sacco sacco*, ♀ underside.

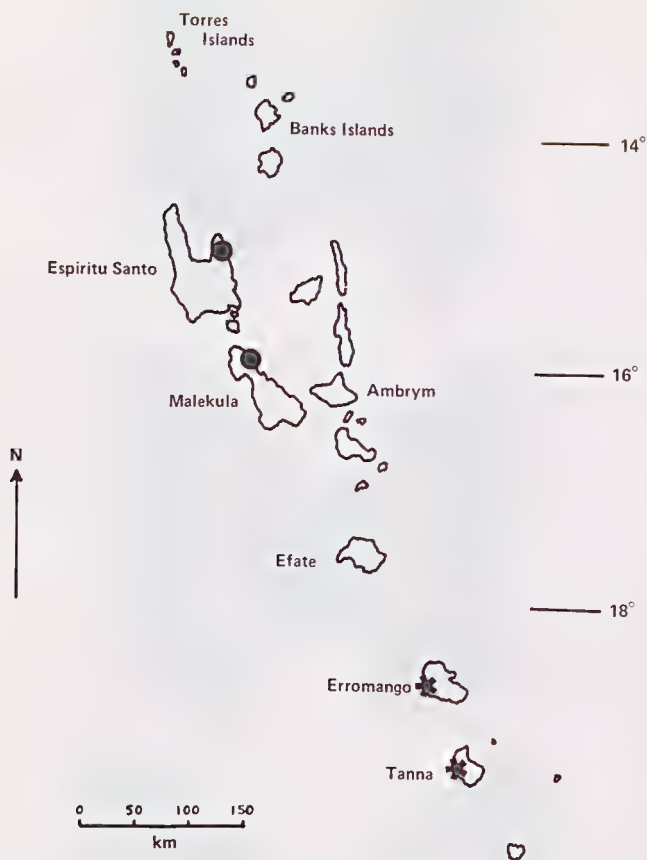


Fig. 7. Distribution of *Polyura sacco*: * subspecies *saccho*, ● subspecies *santoensis* subsp. n.

island of Tanna in the southern Vanuatu archipelago (Smart 1977, Smiles 1982). In the Australian Museum there are two specimens from the neighbouring island of Erromango, immediately north of Tanna (1♂, Dillon Bay, 31.viii.10; 1♀, Erromango [sic.], K15894). *P. s. santoensis* is found some 400 km to the north of *P. s. sacco* and although there are numerous islands located between the known localities for the two subspecies they appear to be geographically isolated. No specimens are known from intervening islands and there is a gap in the island chain of over 100 km between Erromango and Efate (Fig. 7). I have collected extensively on the islands of Efate and Ambrym on many occasions during most months of the year but have never sighted *Polyura*. Father Sacco (*pers. comm.*) has not sighted *Polyura* on these intervening islands despite having resided in the region for many years. Apart from the first damaged ♀ captured flying along a road 8 km S of Port Olry, all sightings of *P. s. santoensis* occurred when the adults were feeding on the fermenting sap of Mandarin Orange, *Citrus reticulata* Blanco, within 2 m of the ground. A single sighting of *P. sacco* was made by Father Sacco at the northern end of the island of Malekula in 1990 (*pers. comm.*). Presumably this is *P. s. santoensis* and represents the only other known locality for this subspecies. Unlike *P. s. sacco* on Tanna, *P. s. santoensis* is very difficult to locate even in suitable habitats. I have collected extensively in many different localities on Espiritu Santo and not sighted further specimens. The food plant is unknown.

Acknowledgements

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References

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